Article title: Pragmatic study of a thromboprophylaxis algorithm in critically ill patients with sars-cov-2 infection

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Laboratory tests

Blood samples were taken from an arterial line and, to ensure clinically accurate sampling, a discard volume of three times the dead space was recommended as well as returning the dead space blood to the patient. Hemostasis tests included platelet count, prothrombin time (PT, expressed as International Normalized Ratio), activated partial thromboplastin time (APTT), fibrinogen level, D-dimer level, antithrombin III (ATIII) activity, anti-factor Xa (anti-FXa) activity, and ROTEM-EXTEM™. PT and APTT assays were measured on the ACL TOP 500 (Werfen, Instrumentation Laboratory, Bedford, MA, USA) with the reagents RECOMBIPLASTIN 2G (Werfen, Instrumentation Laboratory, Bedford, MA, USA) and ACTIN FS (SIEMENS HEALTHCARE DIAGNOSTICS PRODUCTS GMBH, Erlangen, Germany), respectively. Fibrinogen level, D-dimer level, anti-FXa, and ATIII activity were measured on the ACL TOP 500 using the HEMOSIL FIBRINOGEN C test (Werfen, Instrumentation Laboratory, Bedford, MA, USA), D-DIMER HS 500 (Werfen, Instrumentation Laboratory, Bedford, MA, USA), HEMOSIL LIQUID ANTI-FXa (Werfen, Instrumentation Laboratory, Bedford, MA, USA), and HEMOSIL LIQUID ANTITHROMBIN (Werfen, Instrumentation Laboratory, Bedford, MA, USA), respectively. The determination of platelet count was performed using the SYSMEX XN 2000 analyzer (SYSMEX, Hoellaart, Belgium) using the PLT FLUOROCELL and WNR FLUOROCELL reagents (SYSMEX, Kobe, Japan) according to the cytometric method.

The normal limits, as well as the analysis thresholds, were validated by our laboratory as follows: platelets (150-400 x 10^9/L), INR (0.8-1.3), APTT (20.0-33.0 s), fibrinogen (2.0-4.0 g/L), ATIII (80%-120%), anti-FXa ($\leq$ 2 IU-FXa/mL), D-dimer (upper limit of normal 500 ng/mL FEU ; upper limit of analysis 5000 ng/mL FEU), MCF-EXTEM™ (50-72 mm), C-reactive protein (0.4-12 mg/L), white blood cell count (4.0-11.0 x10^3 cells/µL), neutrophil count (1.9-8.0 x10^3 cells/µL), lymphocyte count (0.9-5.2 x10^3 cells/µL). D-dimer levels were measured on the ACL TOP 500 using D-DIMER HS 500 (Werfen, Instrumentation Laboratory, Bedford, MA, USA).